

AN ANALYTICAL REVIEW OF MACROECONOMIC FACTORS IN RURAL SUSTAINABILITY IN INDIA: A THEORETICAL STUDY IN CONTEXT OF AGRICULTURAL DEVELOPMENT

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Abstract. The financial growth of the region and the whole country can be broadly indicated by the macroeconomic factors. These factors are “geopolitical, environmental or economic event” by which the monetary stability of the country and its economy is highly influenced. The economic growth of the region shows ups and down due to these macroeconomic factors and this fluctuation can be “inside and outside” of control of the government and their citizen. The events that change the financial outlook of the country including its rural areas are all described the variables known as macroeconomic factors. There is a cyclical pattern that includes economic growth and recession and the people from different professions address these factors to know the finance related policies to maintain their financial stability. The study had reviewed macroeconomic factors in rural development in India and concludes that there are many significant consequences of macroeconomy development for agriculture sector and the main factor that links this sector to global macroeconomy are “exchange rates, international trade, foreign and domestic income, employment, interest rates, and energy costs”. The macroeconomic changes at domestic and international level can bring in major shifts in the values of these indicators which in turn alter the agricultural price, production, consumption and trade of the country.

Keywords: macroeconomic factors, rural development, agricultural development, India, economic development.

INTRODUCTION

The rural development of any country includes the methods of “enhancing the quality of life and financial well-being of individuals, specifically living in populated and remote areas”. Traditionally, the development of rural areas is mainly focused on the misuse of “land-intensive natural resources” like forestry and agriculture but at present, the nature of rural areas has been completely changed due to increase in urbanisation and change in production networks all over the globe. The development of rural areas is still considered as the core concern for the overall development of the region or the country. Since 2/3rd of the population is agriculture dependent for their living and 1/3rd rural population are below poverty line, it is important for the government to be more productive and provide better infrastructure to improve the living standard of the population.

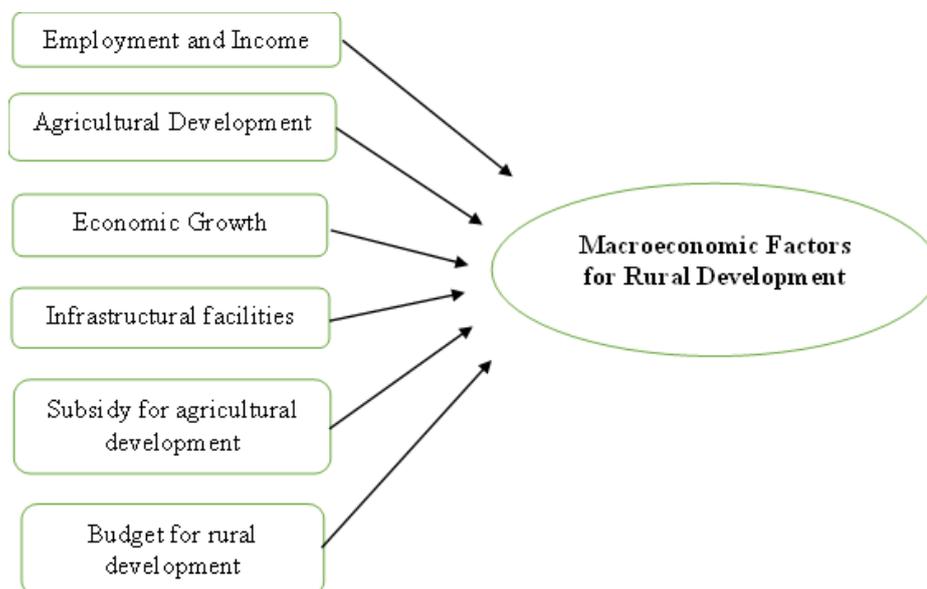


Fig. 1 Macroeconomic Factors for rural development

Rural development includes the action and activities that are taken and initiated to develop the rural areas of the country for its economic growth and this rural development is considered as the side effects of the action and policies that works with the objective to develop the agriculture sector. For last many years, investment in physical infrastructure like “broadband, loan capital, and human services are all supported by rural development policy proposals (NIÑO-AMÉZQUITA ET AL, 2017) but it is important to know that these are not considered as an alternative way of getting funding to shape and support the “local institutions and their leadership” (SELYANSKAYA ET AL, 2018). It is found that the governing bodies are investing huge amount of money every year in “critical rural transport, water, broadband, healthcare, loan funds, tax incentives, education and housing” but they are not spending half of it on “technical assistance, training, planning, capacity building, and operational support” for local organization and leader who takes all the decisions to ensure that federal investments are used in strategical manner. A better impact of these macroeconomic factors can be achieved by using them to strengthen the rural support so as to bring in changes in the state and national policies that affects the outcome and “rural and urban” strategies both MOSKALENKO, YEVSIEIEVA, 2015). In addition, the rural support can also be strengthened through the impact of these factors to get changes in a state or national policies by which the outcome and rural and urban strategies are affected (DUMENU, OBENG, 2016). At present, the hubs and investors use to take care of the “measures or investments” so as to improve the whole region and lead them a better path for the time ahead (JIROUDKOVA ET AL, 2015).

Agriculture and allied sectors are playing important role in Indian economy where agriculture sector is considered as the backbone of the country which is been contributing continuously to country’s economy. In India, nearly 70% of the people are employed through rural economy which counts great contribution of rural economy to Indian economy. It is found that there is positive correlation between the “growth rate of agriculture” and “growth rate of GDP”. In India, the GDP is mostly depending on agricultural sector as it provides employment

to more than 2/3rd of Indian population and supports Indian economy in difficult time (ABDIN, KUMAR, 2020).

Agriculture Growth Rate and GDP Growth Rate. Figures in per cent.

Source: PHD Research Bureau, 2018.

Year	Agriculture Growth Rate	GDP Growth Rate
1980-81	14.4	6.7
1990-91	4.3	5.5
2000-01	-0.6	3.8
2010-11	6.5	10.3
2017-18	3.4	6.7
2018-19	2.9	6.8

The above table shows that there is positive correlation between agriculture growth rate and GDP growth rate. We see that the agriculture growth rate in 1980-81 was at its peak.

In India, different nature of employment opportunities is found in different places and this depends on infrastructure of that area and the region. An individual acquires these employment opportunities on the basis of so many factors like “educational qualifications, skills, abilities, location, and personality traits”. In most of the cases, the people living in rural areas are living the life with conditions of poverty and backwardness and due to this they lack educational skills and do not aware of many areas of employment sector. Due to these above-mentioned situations of rural areas and their population, the rural people are engaged in minority jobs. It is true that majority of rural population are engaged in jobs related to agriculture sector.

LITERATURE REVIEW

The characteristic and fundamental nature of agriculture it is considered as a driver of “long-term growth” and on the other hand the industries are found to have more potential to bring in “technological innovations, achieve dynamic economy of scale, and create external economy” that supports agricultural development and also develops the country as well. It is important to shift the agricultural resources to industries so that sustainable economic development process can be achieved. A developmental strategy is required to create the dynamic interaction amid two sectors (JANDA ET AL, 2013).

When prevalent economy view is studied it is found that industries are considered as the growth engine of the country and this is the reason why number of developing countries are focusing on their process to develop the strategies with the aim to improve the urban industrial sector in place of agricultural sector. Due to above reason, it is the fact that number of industrialized countries are occupying the income and growth by distorting the rural agricultural sector of the developing countries (ABRHAM ET AL, 2015). The study concludes that by the hypothesis of structural changes it is assumed that the complexity and competitive

environment in industrial sector brings in dependency in agricultural sector and serves as a catalyst for economic growth which in turn makes the process of development in the economy.

A subsidy is defined as a “form of financial assistance paid to an economic sector (institution, business or individual) in order to achieve certain policy objectives, which means that any monetary exchange which is not directly connected to paying for a service can be defined as a subsidy” (SALUNKHE, DESHMUSH, 2014). In government budgets, the subsidies appear on “expenditure side” and taxes appear on the “revenue side”. In this the disposable incomes are been reduced by the taxes and on the other hand, money is injected into circulation through subsidies. The subsidies are provided by the government by keeping in view the goals like “to create a wedge between consumer prices and producer costs, induce higher consumption/ production, to achieve social policy objectives including redistribution of income, population control, etc. and to promote general welfare (e.g., housing, sustenance)”.

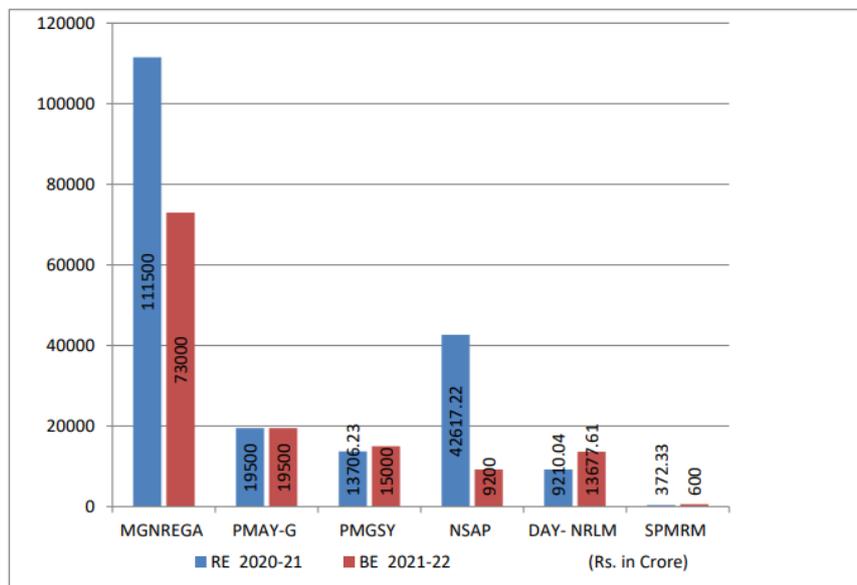


Fig. 2 “Budget allocation to the major rural development programmes”

The state government and UT administrations implement number of programs which the goal of “sustainable and inclusive growth” of rural areas. These “rural development programs” brings in overall improvement in rural areas through “employment generation, reduction in poverty by enabling poor households to access gainful self-employment, ensuring minimum national standard for social assistance and provision of other basic amenities”.

There is a positive and negative impact both of subsidy on the agricultural sector but it is also true that the development of agricultural sector is very difficult without the help of subsidies. The subsidy will have the positive impact if it is withdrawn in phases by which the chances of financial deficit is reduced, the efficiency of resources use is improved and funds for public investment in agricultural sector is increased. On the other hand, the negative impact of the subsidies is that the agriculture production and income of the farmers can be decreased

due to shortage of subsidy. In India, the corruption and ineffective management make obstructions for the subsidies to reach to its end users (farmers) of the country. It is important for the central government to set some specific criteria to provide these subsidies such as “making subsidy as transparent as possible, framing of farmers’ friendly policy in distribution of subsidies, using subsidies for well-defined economic objectives, instituting systems for periodic review of subsidies etc.” (KUMAR, 2020).

RURAL AREAS, EMPLOYMENT AND NATIONAL INCOME INDICATOR OF PROGRESS

It is found through the study that agricultural sector is providing livelihood to more than ½ of Indian population. The government of India had announced “double farmers’ income” by the year 2022 so as to boost the “agricultural productivity” and improve the life of Indian farmers. In the year 2018, the Indian government had brought in “Agriculture Export Policy” with the aim for nearly sixty billion USD export from agricultural sector by the year 2022 which is expected to increase by hundred billion USD by the year 2025 (BUREAU, 2018).

Source: NITI Aayog, 2017.

Year	Economy	Workforce
1970-71	62.4	84.1
1980-81	58.9	80.8
1993-94	54.3	77.8
1999-2000	48.1	76.1
2004-05	48.1	74.6
2011-12	46.9	70.9

The above table shows “the role of rural areas in employment and national income” in which it is observed that the rural areas are employing about eighty four percent of the total work force and contributing to great extent to total economy of India. There are evidence showing that the rural economy has been taken over by urban economy with regards to output but still rural economy is generating better employment opportunities which is a great contribution as compared to urban economy. This also shows that more than seventy percent of Indian population depends on agricultural sector for “employment and livelihood”.

It is reported in the study that the ideal subsidy should be distributed on the basis of “economic levels, size of the holdings, and fertility of the soil” but the government is not following these criteria. This causes regression in the sectoral development as the large, small and marginal, all the farmers are treated at the same level. (ANAND, 2016) the opinion of stakeholders on “agricultural subsidies” and their “impact in Panjab” reveals that the awareness

regarding agricultural schemes that provides subsidies is very less among the farmers but they all know that the subsidies are provided by the government in “areas of seeds, plant protection materials, machinery, micro-irrigation, power and price (MSP)”. The author concludes that the receipt of subsidy by the farmer is significantly affected due to “lack of awareness of time of availability of subsidy, delay in release of subsidies and misallocation of the subsidies”. (SHILPA, BENNI, 2017). It is found in the study that the agriculture economy is benefited by agricultural subsidies but on the other hand it is a misery for overall economy. It is also found through the study that the “fertilizer subsidies” are more as compared to “electricity, irrigation and insurance” subsidies.

For the people living in rural areas and belong to rural communities, the employment opportunities are an important macroeconomic factor. Generally, in rural areas the people are engaged in agriculture and agriculture related jobs and practice farming for their living. Other than these, they work in small scale industries and get themselves employed in production of handicraft and other products. Different type of employment opportunities in the rural sectors of the country includes “agricultural sector, education sector, health care and medical, production of handicrafts, production and marketing of food items, factories and industries, cultural performances, tea stalls and restaurants, repairing machines and technologies and vocational occupations” and they get into these employment opportunities on the basis of their skills, abilities and area of interests. It is also found that the people migrate themselves to urban areas to get better opportunities for their livelihood when they are not able to get jobs and employment in their native rural areas. The factors that influence the acquisition of “employment opportunities” are “pay, location of workplace from home, means of transportation, working environmental conditions, nature of job duties, terms and relationships with other individuals within the workplace, training programs, work timings, benefits and incentives and provision of infrastructure, machinery and tools”. These factors are considered by the rural people in order to get the employment opportunities (RADHIKA, 2019). The people of the rural areas are facing a major setback of not able to cause a significant reduction in the work force in the agricultural sector (KUMAR ET AL, 2011). The major problem behind this setback is the rural people are involved in other tasks and activities along with their agricultural work. At present, the rural population is migrating towards urban areas to acquire new employment opportunities in hope of enhancing their living condition. In the country, due to arrival of modernization and globalization, number of good transformation and advancement is taking place in almost all the sectors and field.

The de-incentivising agriculture is advocated by the authors by present two major points in their argument. First, to create the policies which are helpful to increase the jobs and employment in non-farm sector and second, to stop the subsidies to agriculture sector which only improves the income and life standard of large farmer. The authors had supported to the point for the people to move out of agriculture to solve their problem of poverty and overall development as well (GANGOPADHAYAY, SEN, 2017).

INFRASTRUCTURE, INDICATOR FOR SUSTAINABLE DEVELOPMENT IN RURAL AREAS

The study had analysed the role of infrastructural facilities on the development of agricultural sector in south Indian states of Karnataka and found that there is a significant and positive impact of “infrastructure availability” and its “utilization” on the development of agricultural sector which includes productivity growth and economic growth both and this is the reason why it is important to create a better environment for the development of agricultural sector (MANJUNATH, KANNA, 2017), (NETI ET AL, 2019).

Most of the rural infrastructure services like “roads, water supply including drinking water, minor irrigation, water management and watershed development, health and sanitation and housing” are under the control of state government and “rural electricity and telecommunications” is managed by the central government.

Central Government Expenditure on Rural Infrastructure at Constant (2006–07) Prices

Infrastructure	2000–01 (₹ Million)	2005–06 (₹ Million)	2010–11 (₹ Million)	2011–12 (₹ Million)	Total (2000–12) (₹ Million)
Rural roads	32,660	40,810	168,820	134,630	905,170 (29.8)
Rural drinking water and sanitation	27,450	50,680	79,630	69,560	623,420 (20.5)
Rural housing	19,470	26,340	77,910	68,710	485,110 (16.0)
Irrigation	24,250	22,680	59,040	14,690	481,840 (15.9)
Rural electrification	9,330	11,710	37,680	17,090	241,000 (7.9)
Telecommunication	0	18,620	23,360	11,750	138,510 (4.6)
Watershed	6,280	4830	18,620	16,090	105,570 (3.5)
Integrated Action Plan (IAP)	0	0	11,300	25,230	36,540 (1.2)
Storage	1,500	1,730	1,390	1,850	19,720 (0.6)
PURA	0	0	500	630	2,060 (0.1)
Actual expenditure on rural infrastructure (Total)	120,940	177,400	478,250	360,230	3,038,940 (100.0)

Source: IDFC (2013).

Notes: Figures in parentheses are the shares of total expenditure during 2000–12. PURA = provision of urban amenities to rural areas.

Above table shows the contribution of central government for development of rural infrastructure where the expenditure on rural infrastructure has been tremendously increased. Bharat Nirman, rural infrastructure program was launched to improve “roads, electricity, irrigation, drinking water, telecommunications and housing” in rural areas. The study evaluates the progress for each infrastructure category and for different “composite infrastructure indices” made by the combination of multiple indicators of rural infrastructure.

CONCLUSIONS

The financial growth and declination both are indicated by the macroeconomic factors which includes the things that has an effect on course and direction of a given “large-scale economy”. The financial policies and other regulations are all included in macroeconomic factors (inflation, gross domestic product (GDP), national income, employment opportunities etc.) that has a great impact on rural development as it is helpful in providing employment to rural population and in turn improves their livelihood. Macroeconomic factors can be positive, negative and neutral. The positive macroeconomic factors help in stimulating the economic stability of the rural areas and the whole country as well.

The macroeconomic factors like employment and income, infrastructural facilities, subsidies and budget are all helpful in rural development and agriculture sector. The rural people are able to improve their livelihood if employment is provided in rural areas. The living standard will be increased and poverty level will decrease if the macroeconomic factors work in positive manner. The subsidies for the agricultural sectors help the farmers to improve their agricultural productivity. The government makes budget for agricultural sector so as to help the country to develop their rural sectors.

BIBLIOGRAPHY

- ABDIN, S., KUMAR, R. (2020). Rural Economy of India Helping India Become A5 Trillion Dollar Economy: Contribution, Opportunities and Challenges, *Journal of Interdisciplinary Cycle Research*, XII(V), 1006-1026.

- ABRHAM, J., STRIELKOWSKI, W., VOŠTA, M., ŠLAJS, J. (2015). Factors that influence the competitiveness of Czech rural small and medium enterprises. *Agricultural Economics-Zemедельска Ekonomika*, 61(10), 450-460. doi: 10.17221/63/2015-AGRICECON.
- ANAND, A. (2016). Stakeholders Opinion on Agricultural Subsidies and their Impact in Punjab. M.Sc thesis. Dissertation, Punjab Agricultural University, Ludhiana, 68- 70.
- DUMENU, W.K., OBENG, E.A. (2016). Climate change and rural communities in Ghana: Social vulnerability, impacts, adaptations and policy implications. *Environmental Science & Policy*, 55, 208-217. doi: 10.1016/j.envsci.2015.10.010
- GANGOPADHAYAY, P. and SEN, P. (2017). Improving the Lot of Indian Farmers. *Review of Market Integration*, 8(1&2), 34-38.
- JANDA, K., RAUSSER, G., STRIELKOWSKI, W. (2013). Determinants of Profitability of Polish Rural Micro-Enterprises at the Time of EU Accession. *Eastern European Countryside*, 19(1), 177–217. doi: 10.2478/eec-2013-0009
- JIROUDKOVA, A., ROVNÁ, L.A., STRIELKOWSKI, W., ŠLOSARČÍK, I. (2015). EU Accession, Transition and Further Integration for the Countries of Central and Eastern Europe. *Economics and Sociology*, 8(2),11-25. doi:10.14254/2071-789X.2015/8-2/1
- KUMAR A., et al. (2011). Rural Employment Diversification in India: Trends, Determinants and Implications on Poverty. *Agricultural Economics Research Review*, 24, 361-372.
- KUMAR, S. (2020). Impact of Subsidies on Agriculture Sector in India, *Agri Mirror: Future India*, 1(2), 40-44.
- KUMAR, S. and CHAHAL, V.P. (2018). Doubling Farmers' Income: Possible Way Out. *Indian Farming*, 68(01), 95-96.
- MANJUNATH, S. and KANNA, E. (2017). Effects of Rural Infrastructure on Agricultural Development: A District Level Analysis in Karnataka, India. *Journal of Infrastructure Development*, 9(2).
- MOSKALENKO, V., YEVSIEIEVA, I. (2015) Effective leadership conflict management in food technology enterprises. *International Economics Letters*, 4(2), 91-102. doi: 10.24984/iel.2015.4.2.4
- NETI, A., GOVIL, R. and RAO, MADHUSHREE R. (2019). Farmer Producer Companies in India: Demystifying the Numbers. *Review of Agrarian Studies*, 9(2).
- NIÑO-AMÉZQUITA, J., DUBROVSKY, V., JANKUROVÁ, A. (2017). Innovations and competitiveness in regional development: a comparison of Latin America, Europe, and China. *Czech Journal of Social Sciences, Business and Economics*, 6(1), 28-36. doi: 10.24984/cjssbe.2017.6.1.4
- Phd RESEARCH BUREAU (2018). Rural India: Road to USD 5 Trillion Economy by 2025. PRESS INFORMATION BUREAU (2018). Retrieved from: <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1555538>. [www.phdcci.in/wp-content/uploads/2018/12/Rural-India-Road-to-US\\$-5-Trillion-economy-18-sept-background.pdf](http://www.phdcci.in/wp-content/uploads/2018/12/Rural-India-Road-to-US$-5-Trillion-economy-18-sept-background.pdf)
- RADHIKA KAPUR (2019). Employment Opportunities in Rural Areas. *Acta Scientific Agriculture*, 58-65.
- SALUNKHE, H.A. and DESHMUSH, B.B. (2014). Impact Of Subsidy on Agriculture Sector in India- An Analytical Study. *International Journal of Agricultural Sciences and Research*, 4(2), 9-16.
- SELYANSKAYA, G., FINOGENOVA, Y., STRIELKOWSKI, W. (2018). Factor Analysis of Economic Leadership Peculiarities of Countries and Regions Around the World. In: Strielkowski W., Chigisheva O. (eds) Leadership for the Future Sustainable Development of Business and Education. Springer Proceedings in Business and Economics. Springer, Cham, 213-222. doi: 10.1007/978-3-319-74216-8_22
- SHILPA, R.S. and BENNI, B. S. (2017). Agricultural Subsidies in India. *Indian Journal of Research*, 6(6), 450-453.